

5/7/96

**Interview Summary**

Application No. <b>08/278,601</b>	Applicant(s) <b>Knipe et al.</b>	
Examiner <b>Anthony C. Caputa</b>	Group Art Unit <b>1806</b>	

All participants (applicant, applicant's representative, PTO personnel):

(1) Anthony C. Caputa (3) David Knipe  
 (2) Carolyn Elmore (4) \_\_\_\_\_

Date of Interview May 7, 1996

Type: ☐ Telephonic ☒ Personal (copy is given to ☐ applicant ☒ applicant's representative).

Exhibit shown or demonstration conducted: ☒ Yes ☐ No. If yes, brief description:

Exhibit provided which shows two types of hepes virus mutants: replication competent mutant viruses as set forth by Roizman and replication defective mutants as set forth by the instant application

Agreement ☐ was reached. ☒ was not reached.

Claim(s) discussed: all pending

Identification of prior art discussed:

Roizman

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:

Applicants agreed to consider abandoning the copending application to overcome the double patenting rejection.  
Applicants agreed to provide arguments to overcome the enablement rejection and prior art rejection. Applicants agreed to cancel claims 27 and 30 to overcome the deposit requirement. The Examiner will consider applicants arguments to overcome the enablement rejection and 103 rejection

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

1. ☒ It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph above has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a response to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW.

2. ☐ Since the Examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the interview unless box 1 above is also checked.

Examiner Note: You must sign and stamp this form unless it is an attachment to a signed Office action.

## HERPES SIMPLEX VIRUS GENES

Most recent lists (e.g., Roizman and Sears in *Fields' Virology*, 3rd ed. Fields, Knipe and Howley, eds) include:

- 36 genes whose products are essential for replication in cell culture.
- 44 genes whose products are non-essential for replication in cell culture.

## TYPES OF HSV MUTANTS

Replication-competent mutant viruses contain mutations in non-essential genes. These viruses can grow in normal cells but may be decreased for growth in or spread to certain tissues such as the central nervous system. These viruses are avirulent or attenuated.

These viruses are used for live, attenuated viral vaccines.

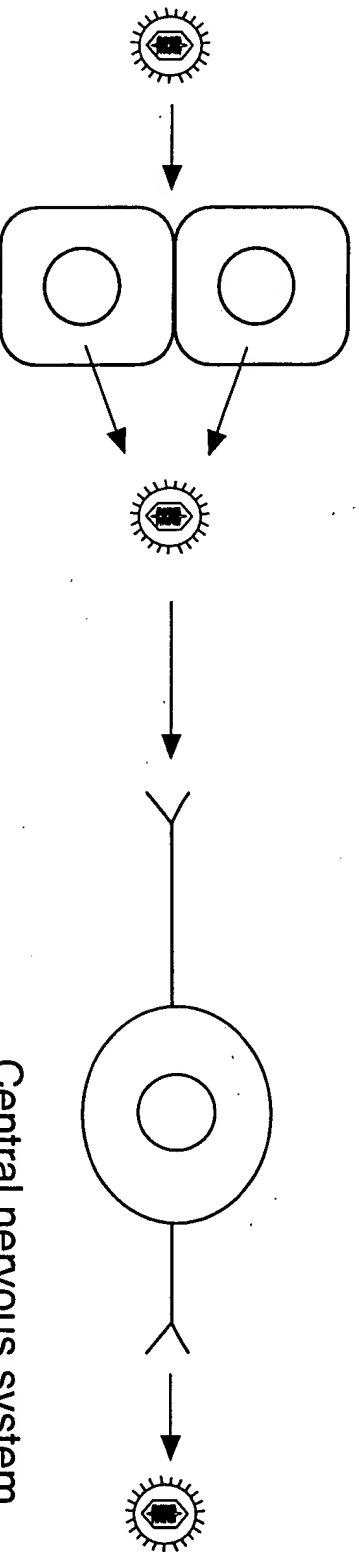
Replication-defective mutants contain mutations in essential genes and must be propagated on a transformed cell line that expresses the missing viral gene product.

These mutant viruses do not produce infectious progeny in any normal cells.

These viruses are used for live, replication-defective mutant viral vaccines.

# BIOLOGICAL PROPERTIES OF DIFFERENT HSV MUTANTS

Wild type virus

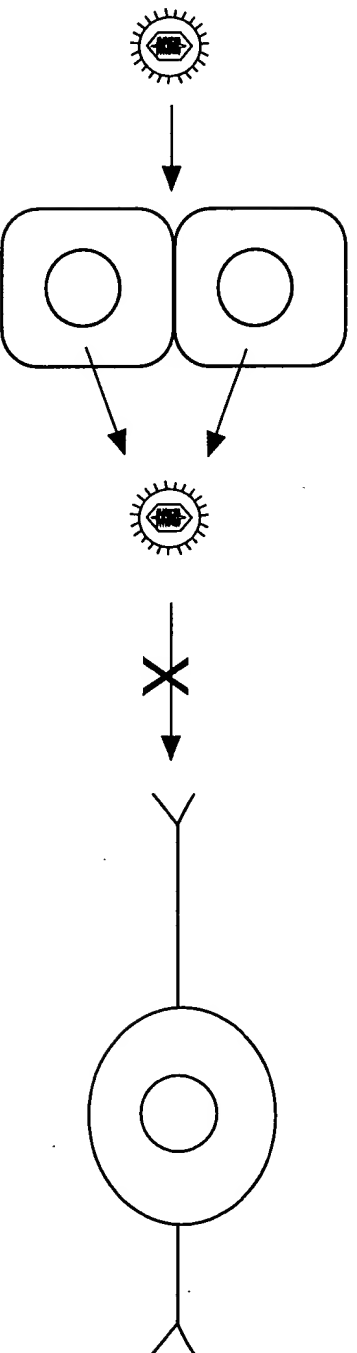


Epithelium

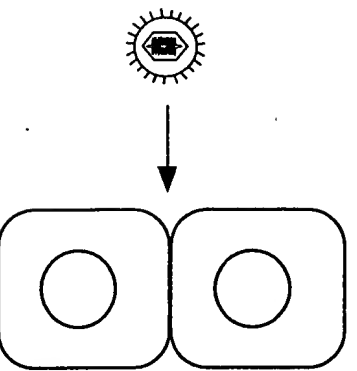
Central nervous system

Attenuated virus (replication-competent)

*Polytropic*



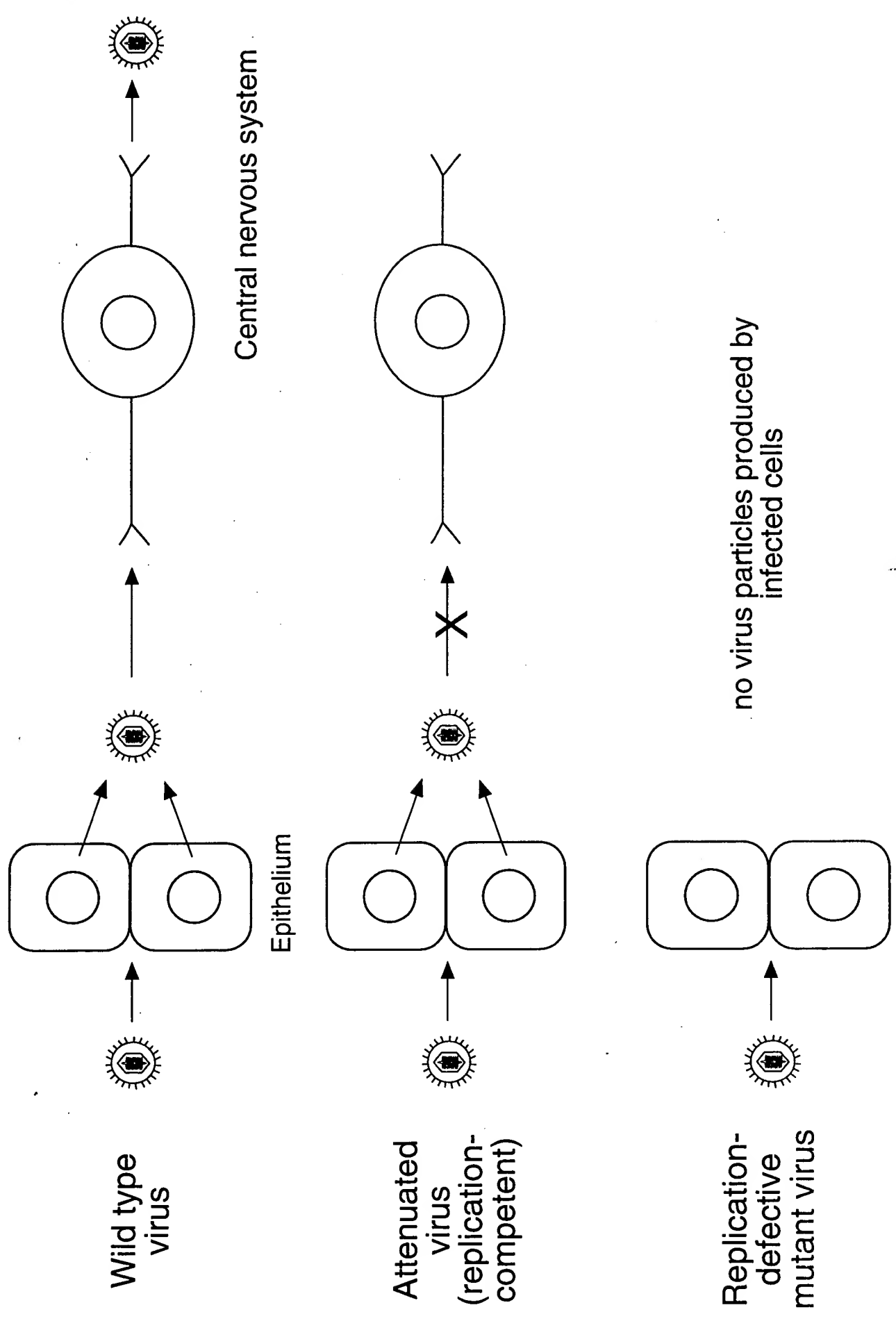
Replication-defective mutant virus



no virus particles produced by infected cells

$\xrightarrow{IE \text{ (regulatory)}} E \text{ (DNA rep)} \xrightarrow{CP8} \text{structural} \rightarrow \text{virus}$

# BIOLOGICAL PROPERTIES OF DIFFERENT HSV MUTANTS



## PROPAGATION OF REPLICATION-DEFECTIVE MUTANT VIRUSES

